UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,839	11/28/2001	Jae Kyung Lee	P-0288	8445

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EXAMINER
ZHOU, TING

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/994,839	LEE, JAE KYUNG
	Examiner	Art Unit	
	Ting Zhou	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 July 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 15-20* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   The Request for Continued Examination (RCE) filed on 8 July 2005 under 37 CFR

1.53(d) based on parent Application No. 09/994,839 is acceptable and a RCE has been

established. An action on the RCE follows.

2.   The amendments filed on 8 July 2005, submitted with the filing of the RCE have been

received and entered. The applicant has cancelled claim 14. Claims 1-13 and 15-20 as amended

are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vazquez et al. in the article titled "Supporting Flexible Assembly Through Human Factors",

published in the *PROCEEDINGS of the HUMAN FACTORS AND ERGONOMICS SOCIETY*

41ˢᵗ ANNUAL MEETING in 1997 (hereinafter "Vazquez"), and Perlman U.S. Patent 6,829,779.

Referring to claim 1, Vazquez teaches a method comprising determining whether a

selection key signal for display of the user's manual is input (operator selection of product to be

assembled via a mouse input) (Vazquez: page 562, step 1 under section entitled *Software*

Interface); graphically displaying the product having a plurality of parts, or assembly

components, according to the selection key signal (providing directions and illustrations on the

operations of the assembly of the product) (Vazquez: abstract on page 561 and passages under

the sections *Apparatus* and *Software Interface* on page 562); successively selecting and

graphically marking portion of the plurality of parts of the video apparatus in an initial

predetermined display order (assembly instructions and illustration, which display the operation

instructions of assembly components are selected and graphically displayed in their executable

order) (Vazquez: page 562, steps 2 and 4 under section entitled *Software Interface*); interrupting

the initial predetermined display order upon a selection of at least one part of the product by a

user input and displaying the user input selected at least one part of the video apparatus and

portions of the user's manual corresponding to the at least one part of the assembly product (at

any time, the user can interrupt the executable order of the directions and illustrations by

selecting to display a full-screen picture of the selected assembly components) (Vazquez: page

562, steps 1-6 under section entitled *Software Interface*). However, Vazquez fails to explicitly

teach the assembled product being a video apparatus having a plurality of parts. Perlman teaches

a graphical user interface that displays directions and illustrations for assembling, or setting up a

product (Perlman: column 4, lines 49-67) similar to that of Vazquez. In addition, Perlman

further teaches assembling a video apparatus having a plurality of parts (displaying setup

instructions for interconnecting a plurality of consumer electronics devices) (Perlman: column 4,

line 49 - column 5, line 29 and Figures 1-6). It would have been obvious to one of ordinary skill

in the art, having the teachings of Vazquez and Perlman before him at the time the invention was

made, to modify the interface for graphically displaying instructions for assembling a product of

Vazquez to include the graphical display of setup instructions for connecting consumer

electronics devices taught by Perlman. One would have been motivated to make such a

combination in order to deliver interactive instructions for setting up and connecting various

consumer devices; television, which has provided a source of entertainment for millions of

individuals, have moved beyond their simple traditional configurations to become the center of a

wide array of entertainment and information systems such as the VCR, DVD, video game

devices, etc.; the combination of the teachings of Vazquez et al. and Perlman would allow users

to easily custom configure a wide array of home entertainment and information systems in a

manner that realizes the full benefits of the consumer electronics devices.

Referring to claim 2, Vazquez, as modified, teach the user's manual comprises images of

the parts (combining the display of text with illustrations) (Vazquez: abstract on page 561 and

passages under the sections *Apparatus* and *Software Interface* on page 562).

Referring to claim 3, Vazquez, as modified, teach the user's manual comprises enlarged

images of the parts (users can view an enlarged, or full-screen picture of all the assembly

components and the completed assemblage) (Vazquez: page 562, steps 2-3 under section entitled

Software Interface).

Referring to claim 4, Vazquez, as modified, teach the parts of the video apparatus

comprise a connector for connecting to a peripheral apparatus including one or more input/output

terminals of the video apparatus (connecting one or more peripheral apparatuses, or consumer

electronics devices to the Internet or television terminal via a connection to the input/output, or

Line In/Line Out connectors of the terminals) (Perlman: column 4, line 49 - column 5, line 29,

column 8, lines 36-45 and Figures 1-6).

Referring to claim 5, Vazquez, as modified, teach when an enter-key signal is input while

portions of the user's manual corresponding to the connector are displayed, an operating mode of

the video apparatus is adapted to operate the peripheral apparatus (when signal of the consumer

establishing the graphically instructed connection is received, the connected consumer

electronics device can be operated to determine whether the connection is fully established and

the device fully functional) (Perlman: column 5, lines 15-29 and column 9, line 43 – column 10,

line 39).

Referring to claim 6, Vazquez, as modified, teach parts of the video apparatus comprises

a manipulation portion of the video apparatus (connection instructions for portions of the

terminals used to manipulate the devices, such as the Line In/Line Out connectors) (Perlman:

column 4, line 49 - column 5, line 29, column 8, lines 36-45 and Figures 1-6).

Referring to claim 7, Vazquez teaches a method comprising (a) determining whether a

selection key signal for display of an instruction manual is input by a user (operator selection of

product to be assembled via a mouse input) (Vazquez: page 562, step 1 under section entitled

Software Interface); and (b) graphically displaying multiple images of predetermined portions of

an assembly product according to the selection key signal (providing directions and illustrations

on the operations for the assembly of the product) (Vazquez: abstract on page 561 and passages

under the sections *Apparatus* and *Software Interface* on page 562), graphically marking at least

one image of predetermined portions of the video apparatus (portions, or components of the

product can be graphically marked, i.e. selected and displayed in a full-screen picture) (Vazquez:

page 562, steps 2 and 4 under section entitled *Software Interface*) and graphically and

sequentially displaying corresponding portions of the instruction manual of a method for

assembling the product (assembly instructions and illustrations, which display the operation

instructions of assembly components are displayed sequentially, i.e. in their executable order)

(Vazquez: page 562, steps 2 and 4 under section entitled *Software Interface*). However, Vazquez

fails to explicitly teach displaying images of at least one peripheral apparatus according to the

selection key signal and graphically displaying instructions for connecting a video apparatus to at

least one peripheral apparatus. Perlman teaches a graphical user interface that displays directions

and illustrations for assembling, or setting up a product (Perlman: column 4, lines 49-67) similar

to that of Vazquez. In addition, Perlman further teaches displaying images of at least one

peripheral apparatus according to the selection key signal and graphically displaying instructions

for connecting a video apparatus to at least one peripheral apparatus (displaying instructions,

including text and/or graphical images, describing the proper way to connect a peripheral device,

such as consumer electronics devices like a VCR, to the internet, or television terminal)

(Perlman: column 4, line 49 - column 5, line 29, column 8, lines 35-67, column 9, line 43 –

column 10, line 39 and Figures 1-6). It would have been obvious to one of ordinary skill in the

art, having the teachings of Vazquez and Perlman before him at the time the invention was made,

to modify the interface for graphically displaying instructions for assembling a product of

Vazquez et al. to include the graphical display of setup instructions for connecting consumer

electronics devices taught by Perlman. One would have been motivated to make such a

combination in order to deliver interactive instructions for setting up and connecting various

consumer devices; television, which has provided a source of entertainment for millions of

individuals, have moved beyond their simple traditional configurations to become the center of a

wide array of entertainment and information systems such as the VCR, DVD, video games

devices, etc.; the combination of the teachings of Vazquez and Perlman would allow users to easily custom configure a wide array of home entertainment and information systems in a manner that realizes the full benefits of the consumer electronics devices.

Referring to claim 8, Vazquez et al., as modified, teach enlarging the at least one image that is graphically marked (displaying an enlarged, or full-screen picture of the selected components of the final product) (Vazquez: page 562, steps 2-3 under section entitled *Software Interface*).

Referring to claim 9, Vazquez, as modified, teach step (b) is halted when a user selects at least one portion of the video apparatus for display (at any time, the user can interrupt the executable order of the display of directions and illustrations by selecting to view a full-screen picture of all the assembly components or a full-screen picture of the completed assemblage) (Vazquez: page 562, steps 1-6 under section entitled *Software Interface*).

Referring to claim 10, Vazquez, as modified, teach the predetermined portion of the video apparatus comprise a connector including at least one input/output terminal of the video apparatus for connecting to the at least one peripheral apparatus (connecting one or more peripheral apparatuses, or consumer electronics devices to the Internet or television terminal via a connection to the input/output, or Line In/Line Out connectors of the terminals) (Perlman: column 4, line 49 - column 5, line 29, column 8, lines 36-45 and Figures 1-6).

Referring to claim 11, Vazquez, as modified, teach when a signal is input by the user while a portion of the reference manual corresponding to the at least input/output terminal connector is displayed, an operating mode of the video apparatus is adopted to operate the at least one peripheral apparatus (when signal of the consumer establishing the graphically

instructed connection is received, the connected consumer electronics device can be operated to

determine whether the connection is fully established and the device fully functional) (Perlman:

column 5, lines 15-29 and column 9, line 43 – column 10, line 39).

Referring to claim 12, Vazquez, as modified, teach at least one predetermined portion of

the video apparatus is a manipulation portion of the video apparatus (connection instructions for

portions of the terminals used to manipulate the devices, such as the Line In/Line Out

connectors) (Perlman: column 4, line 49 - column 5, line 29, column 8, lines 36-45 and Figures

1-6).

Referring to claim 13, Vazquez teaches an apparatus comprising a manual of a method

for assembling a product and graphically displaying images of predetermined portions of the

product (GUI-based system providing interactive assembly instructions and illustrations of

components of the user selected product) (Vazquez: pages 561-562); a microcomputer for

receiving a manual selection key signal received from a user and outputting a control signal

(operator selection of product to be assembled via a mouse input and consequently outputting the

directions and illustrations corresponding with the selected product) (Vazquez: page 562, steps

1-6 under section entitled *Software Interface*); and a manual display unit for graphically

displaying portions of the manual in a predetermined sequence on the screen of the GUI-based

system according to the control signal wherein the control signal sets the predetermined

sequence (when a control signal of user selection of a product for assembly is received, the

directions and illustrations on the assembly operations for the product is displayed in an

executable order) (Vazquez: abstract on page 561 and passages under the sections *Apparatus* and

Software Interface on page 562), wherein the manual display unit is adapted to graphically mark

an image of at least one predetermined portion of the video apparatus (portions, or components

of the product can be graphically marked, i.e. selected and graphically displayed) (Vazquez: page

562, steps 2 and 4 under section entitled *Software Interface*), and to display an enlarged graphic

of the image on the screen of the video apparatus marked (displaying an enlarged, or full-screen

picture of the selected components of the final product) (Vazquez: page 562, steps 2-3 under

section entitled *Software Interface*). However, Vazquez fails to explicitly teach a manual data

storage unit for storing manual data including the manual of a method for connecting the video

apparatus to at least one peripheral apparatus. Perlman teaches a graphical user interface that

displays directions and illustrations for assembling, or setting up a product (Perlman: column 4,

lines 49-67) similar to that of Vazquez. In addition, Perlman further teaches a manual data

storage unit for storing manual data including the manual of a method for connecting a video

apparatus to at least one peripheral apparatus and graphically displaying images of

predetermined portions of the video apparatus (an instructions repository, or storage database,

storing instructions for connecting any of a large number of consumer electronics devices to the

Internet terminal or television and displaying instructions, including text and/or graphical

images, describing the proper way to connect a user-identified peripheral device, such as a

consumer electronics device like a VCR, to the internet, or television terminal) (Perlman: column

4, line 49 - column 5, line 29, column 8, lines 35-67, column 9, line 43 – column 10, line 39 and

Figures 1-6). It would have been obvious to one of ordinary skill in the art, having the teachings

of Vazquez and Perlman before him at the time the invention was made, to modify the interface

for graphically displaying instructions for assembling a product of Vazquez et al. to include the

graphical display of setup instructions for connecting consumer electronics devices taught by

Perlman. One would have been motivated to make such a combination in order to deliver

interactive instructions for setting up and connecting various consumer devices; television, which

has provided a source of entertainment for millions of individuals, have moved beyond their

simple traditional configurations to become the center of a wide array of entertainment and

information systems such as the VCR, DVD, video games devices, etc.; the combination of the

teachings of Vazquez and Perlman would allow users to easily custom configure a wide array of

home entertainment and information systems in a manner that realizes the full benefits of the

consumer electronics devices.

Referring to claim 15, Vazquez, as modified, teach portions of the manual comprise at

least one image of the at least one peripheral apparatus (Figure 5 of Perlman shows the display of

images of connected peripheral devices such a cable box and a VCR).

Referring to claim 16, Vazquez, as modified, teach the predetermined portions of the

video apparatus comprise a connector including one or more input/output terminals of the video

apparatus for connecting to the at least one peripheral apparatus (connecting one or more

peripheral apparatuses, or consumer electronics devices to the Internet or television terminal via

a connection to the input/output, or Line In/Line Out connectors of the terminals) (Perlman:

column 4, line 49 - column 5, line 29, column 8, lines 36-45 and Figures 1-6).

Referring to claim 17, Vazquez, as modified, teach the microcomputer, when a signal is

input, adapts an operating mode of the video apparatus to operate the at least one peripheral

apparatus connected to the connector (when signal of the consumer establishing the graphically

instructed connection is received, the connected consumer electronics device can be operated to

determine whether the connection is fully established and the device fully functional) (Perlman: column 5, lines 15-29 and column 9, line 43 – column 10, line 39).

Referring to claim 18, Vazquez et al., as modified, teach the predetermined portions of the video apparatus comprise a manipulation portion of the video apparatus (connection instructions for portions of the terminals used to manipulate the devices, such as the Line In/Line Out connectors) (Perlman: column 4, line 49 - column 5, line 29, column 8, lines 36-45 and Figures 1-6).

Referring to claims 19 and 20, Vazquez et al., as modified, teach the instruction manual comprises displaying a message in an on screen display (OSD) format (displaying on-line instructions and illustrations on the screen of a graphical user interface) (Vazquez: passages under the sections *The System*, *Apparatus* and *Software Interface* on page 562; Perlman: column 5, lines 15-29).

Response to Arguments

4.   Applicant's arguments filed 8 July 2005 have been fully considered but they are not persuasive:

5.   The applicant argues that none of Vazquez, Perlman or their combination disclose or suggest the claimed graphically marking features (i.e. successively selecting and graphically marking portions of the plurality of parts of the video apparatus in an initial predetermined display order). The examiner respectfully disagrees. During the interview conducted with the applicant's representative on 16 August 2005, the applicant's representative mentioned that the

graphically marking feature is essentially the teaching of highlighting the portions of the

plurality of parts of the video apparatus. However, the examiner respectively disagrees with the

applicant's equation of graphically marking with highlighting; the examiner asserts that

highlighting is just one form of graphical marking and that graphically marking has much

broader scope than highlighting. According to the *Merriam-Webster* online dictionary,

definitions of "marking" include (http://www.m-w.com/cgi-

bin/dictionary?book=Dictionary&va=marking):

> Main Entry: [2]**mark**
> Function: *verb*
> Etymology: Middle English, from Old English *mearcian;* akin to Old High
> German *marcOn* to mark, determine the boundaries of, Old English *mearc*
> boundary
> *transitive senses*
> 1 a (1) : to fix or trace out the bounds or limits of (2) : to plot the course of :
> CHART b : to set apart by or as if by a line or boundary -- usually used with *off*
> 2 a (1) : to designate as if by a mark (2) : to make or leave a mark on (3) : to
> furnish with natural marks <wings *marked* with white> (4) : to label so as to
> indicate price or quality (5) : to make notations in or on b (1) : to make note of in
> writing : JOT <*marking* the date in his journal> (2) : to indicate by a mark or
> symbol <*mark* an accent> (3) : REGISTER, RECORD (4) : to determine the value of
> by means of marks or symbols : GRADE <*mark* term papers> c (1) :
> CHARACTERIZE, DISTINGUISH <the flamboyance that *marks* her style> (2) :
> SIGNALIZE <this year *marks* our 50th anniversary>
> **3 : to take notice of** : OBSERVE <*mark* my words>
> 4 : to pick up (one's golf ball) from a putting green and substitute a marker
> *intransitive senses* : to take careful notice
> - mark time 1 : to keep the time of a marching step by moving the feet alternately
> without advancing 2 : to maintain a static state of readiness <the House was
> *marking time* while the Senate talked -- F. L. Paxson>

As can be seen from the above definitions, marking is simply taking notice of something or to set

something apart. Vazquez teaches that directions and illustrations of assembly operations are

selected and graphically displayed in a certain executable order; the directions and illustrations are instructions for the assembly of a product, in other words, the displayed directions and illustrations include displayed components of the product, as recited in page 562, steps 1-6; therefore, components of the product, or portions of the plurality of parts of the product are selected and graphically marked in that they are being set apart by being graphically displayed on the screen. Furthermore, Vazquez also teaches that selected components of the final product can be set apart, i.e. graphically marked, by being displayed in a full-screen picture, as recited on page 562, step 2; therefore, portions of the plurality of parts, i.e. selected components of the product, can be selected by the user and graphically marked in that they are being set apart by being graphically displayed in a full-screen view. Therefore, the examiner respectfully maintains that the combination of Vazquez and Perlman teaches the recited graphically marking limitations.
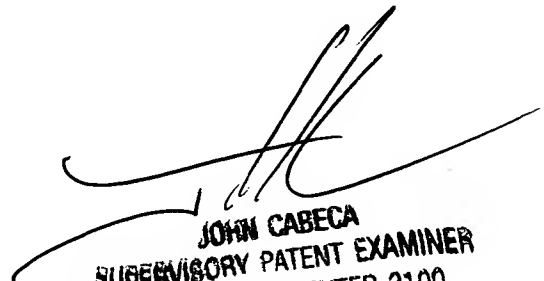
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TZ

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